

UNITED STATES COAST GUARD

U.S. Department of Homeland Security

MARINE SAFETY ALERT

Inspections and Compliance Directorate

July 9, 2003 (reformatted 2014) Washington, DC

Safety Alert 05-03

CARBON MONOXIDE EXPOSURE

The following information is provided by the U.S. Coast Guard's Marine Safety Office (MSO) in Mobile, Alabama. The MSO is currently investigating two deaths aboard a fishing vessel in Bayou la Batre, Alabama. Preliminary findings indicate that the victims were exposed to deadly levels of carbon monoxide (CO). Although the investigation is not complete, important lessons have been learned.

The carbon monoxide came from the exhaust of a portable generator located in the forward part of the engine room. This generator provided power to the vessel's the air conditioning unit and main deck lighting. The generator's exhaust gases vented directly into the engine room. Initial inspection of the vessel revealed:

- improper ventilation in the engine room,
- exhaust leaks from the main engine exhaust manifold,
- structural corrosion of the main deck, and
- open wiring trunks between the engine room and the cabin / wheelhouse.

Inadequate ventilation in the engine room in conjunction with the openings between decks allowed the exhaust from the portable generator to easily enter the cabin area. The victims had ceased fishing, secured the main engine, and retired for the evening. Due to the extreme heat and humidity, the doors to the cabin / wheelhouse were closed and the generator was started to power the portable air conditioning unit. The exhaust from the portable generator quickly filled the engine room with deadly levels of carbon monoxide which in turn seeped through deck openings into the cabin area. Unaware of the dangers, the victims went to sleep.

Carbon monoxide is a colorless and odorless gas produced as a by-product of combustion in diesel and gasoline engines. This toxic gas can accumulate quickly, especially in confined spaces, and has deadly effects on those exposed to it. Proper elimination of exhaust gases is vital in maintaining a safe atmosphere onboard any vessel. The Coast Guard urges mariners to ensure that the exhaust systems of all diesel and gasoline engines are properly vented away from accommodation, working, and recreational areas onboard vessels.

BE VIGILANT TO THIS ISSUE....YOUR LIFE DEPENDS ON IT.

Questions regarding the content of this safety alert may be addressed to Lt. James Eiland at jeiland@miomobile.uscg.mil or 251.441.5763.

This safety alert is provided for informational purpose only and does not relieve any domestic or international safety, operational or material requirement. Developed by the Office of Investigations and Casualty Analysis. For questions or concerns please email hqs-pf-fldr-cg-inv@uscg.mil.